UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,355	02/07/2006	Hiroshi Morikawa	IRD-0003	9323

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RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER
DICKER, DENNIS T.

ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _07 February 2006_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-6_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _07 February 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _1/14/2005_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 5-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. Claims 5-6 fail to claim that the program is recorded on

an appropriate computer or printer readable medium so as to be structurally functionally

interrelated to the medium and thus permit the function of a descriptive material to be

realized.

Examples of acceptable language in computer-processing relating claim

1. "Computer readable medium" encoded with

> [a] "a computer program"

> [b] "Software"

> [c] "Computer executable instructions"

> [d] "Instructions capable of being executed on a compute

2. "A computer readable medium computer program"

> [a] storing a

> [b] embodied with a

> [c] encoded with a

> [d] having a stored

> [e] having an encode

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishida et

al (hereinafter "Ishida '978" 6,232,978).

As pertaining to **Claim 1** , Ishida '978 teaches a printing apparatus **(i.e., Col. 13**

Lines 55-60 and 15 of Fig. 1, Printer) comprising: a bitmap data **(i.e., Col. 9 Lines 35-**

36, Bit map data) storage unit for storing bitmap data **(i.e., Col. 3 lines 30-33, bit map**

data is stored on a disk); a bitmap data acquisition unit for acquiring said bitmap data

from said bitmap data storage unit **(i.e., Col. 3 Lines 30-33,CPU for getting hold of bit**

map data stored in storage unit); a jaggy elimination processing unit **(i.e.,12, 13 and**

14 of Fig. 9, outline smoothing unit is used as a jaggy elimination unit) for

executing processing of eliminating jaggies on said bitmap data **(i.e., Col. 9 Lines 27-**

29, outline smoothing unit eliminates jaggies on bitmap data also called contour

vectors [Col 8 Lines 53-54]); and a printing unit **(i.e.,15 of Fig. 1, Output printing**

unit) for printing data that is produced based on processing results from said jaggy

elimination processing unit **(i.e., Col. 13 Lines 55-60, as shown in Fig. 1 the output**

unit [15] prints data produced based on the processing results of the jaggy

elimination processing unit [13]).

As pertaining to **Claim 2**, Ishida '978 teaches a printing apparatus wherein said

jaggy elimination processing unit comprises: a jaggy detection unit **(i.e., Col. 3 Line 49,**

CPU) for detecting jaggies appearing on said bitmap data **(i.e., Col. 3 Lines 49-62,**

CPU unit detects jaggies in bit map data); and a vector data production unit for

producing vector data **(i.e.,12 of Fig. 1 and Col. 1 Lines 44-47, Outline extraction**

unit produces vector data from image data), based on all stair-like straight lines on

jaggies that were detected by said jaggy detection unit **(i.e., Col. 3 Lines 49-52, jaggy**

detection unit creates vector data based on stair like straight lines), by drawing a

straight line from a midpoint of one straight line to a midpoint of another straight line

adjacent thereto **(i.e., Fig. 5 and col. 7 lines 32-40, a straight line from a midpoint**

of one straight line to an midpoint of another adjacent straight line is drawn).

As pertaining to **Claim 3**, Ishida '978 teaches a printing apparatus further

comprising: a transformation rule retention unit **(i.e., 12 of Fig. 1 , outline extraction**

unit) for retaining data transformation rules for transforming bitmap data **(i.e., Col 2**

lines 4-10, outline extraction unit retains transformation rules for detecting

contour edge vectors for transformation of bitmap data); and a data transformation

unit **(i.e.,14 of Fig. 1, binary image reproducing unit)** for transforming part of said

bitmap data according to said transformation rules **(i.e., Col. 11 lines 59-63 ,**

transformation unit reproduces bit map data according too transformation rules

from the outline vector data), said printing unit printing data that is produced based on

transformation results from said data transformation unit and processing results from

said jaggy elimination processing unit **(i.e., Col. 13 Lines 55-60, as shown in Fig. 1**

the output unit[15] prints data produced based on the transformation results of the transformation unit [14] and processing results from the jaggy elimination processing unit [13]).

As pertaining to **Claim 4**, Ishida '978 teaches a printing apparatus wherein said transformation rules include 3 x 3 dot patterns before transformation **(i.e., Col. 2 lines 1-4, transformations rules for transforming bit map data contain 3x3 dot pixel pattern the pixel of interest and 8 pixels neighboring)** and 3 x 3 dot patterns after transformation **(i.e., Fig. 11 and col. 2 lines 16-18, after transformation there is an extraction of a 3x3 dot pattern)**; and according to said transformation rules, if a dot pattern on said bitmap data matches any one of said dot patterns before transformation said pattern is transformed into a corresponding one of said dot patterns after transformation **(i.e., Col 4 lines 37-42, according to transformation rules if coordinate values of a dot pattern match a dot pattern transformed the coordinate values are adopted after transformation)**.

As pertaining to **Claim 5**, Ishida '978 teaches a computer program that enables a computer to execute **(i.e., col. 15 lines 31-33, Computer program enabling a computer to execute the steps taught by Ishida '978)** the steps of: acquiring bitmap data stored on the computer **(i.e., Col. 11 lines 29-47 , acquisition unit acquires data stored on a computer)**; eliminating jaggies appearing on said bitmap data**(i.e., Col. 9 Lines 27-29, outline smoothing unit eliminates jaggies on bitmap data also called contour vectors [Col 8 Lines 53-54])**; and specifying printing of data that is produced based on processing results obtained in said jaggy elimination step **(i.e., Col. 13 Lines**

55-60, as shown in Fig. 1 the output unit prints data produced based on the

processing results of the smoothing unit which executes the jaggy elimination

step)..

As pertaining to **Claim 6**, Ishida '978 teaches a computer program that enables

the computer to further execute the step of transforming part of said bitmap data

according to transformation rules stored on the computer **(i.e., Col. 3 Lines 49-62, the**

transformation rules [Fig. 18] stored on the computer for transforming bit map

data), and wherein said step of specifying printing of data that is produced based on

processing results obtained in said jaggy elimination step **(i.e., Col. 13 Lines 55-60, as**

shown in Fig. 1 the output unit prints data produced based on the processing

results of the smoothing unit which executes the jaggy elimination step).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dennis Dicker whose telephone number is (571) 270-

3140. The examiner can normally be reached on Monday -Friday 7:30 A.M. to 5:00

P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
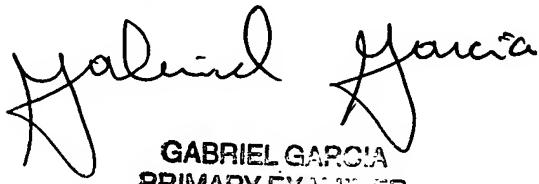
GABRIEL GARCIA
PRIMARY EXAMINER

DD

2/15/2008